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# REMARKS/ARGUMENTS

Claims 1-15 and 17-34 are pending in this application. By this Amendment, Applicants AMEND the Specification, the Drawings, and claims 1 and 15 and CANCEL claim 16 and ADD claims 29-34.

Applicants greatly appreciate the allowance of claims 8-14 and 22-28 by the Examiner.

Applicants greatly appreciate the Examiner's indication that claim 17 would be allowable if rewritten in independent form including all of the features of the base claim and any intervening claims.

The Examiner objected to the Drawings for allegedly failing to show every feature of the claims. Fig. 13 has been added to show the feature that was recited in originally filed claim 16 and now recited in amended claim 15. Accordingly, Applicants respectfully request reconsideration and withdrawal of this objection to the Drawings. Applicant's undersigned attorney hereby declares that no new matter has been added by Fig. 13 and that the subject matter shown in Fig. 13 was described in the originally filed application.

Claim 16 was rejected under 35 U.S.C. § 112, second paragraph as allegedly being indefinite. As noted above, Applicants have canceled claim 16. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claim 16 under 35 U.S.C. § 112, second paragraph.

Claims 1, 2, 5-7, 15, and 19-21 were rejected under 35 U.S.C. § 102(b) as being anticipated by Kadota et al. (U.S. 6,150,900). Claims 15 and 18 were rejected under 35 U.S.C. § 102(b) as being anticipated by Kadota et al. (U.S. 5,768,603). Claims 1-4, 6 and 7 were rejected under 35 U.S.C. § 103(a) as being obvious over Kadota (JP 2000-068782) and Ono et al. (JP 60-0411809). Applicants respectfully traverse the rejections of claims 1-7, 15, and 18-21.

Claim 1 has been amended to recite:

"An edge-reflection surface acoustic wave filter using Shear Horizontal type surface acoustic waves comprising:  
a piezoelectric substrate having a first edge and a second edge

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disposed opposite to each other, said first and second edges defining reflection edges; and

**at least two interdigital transducers including electrode fingers and being disposed on said piezoelectric substrate;**

**wherein distances between an inner side of an outermost electrode finger and the first and second edges are greater than a distance between the outermost electrode finger and an adjacent electrode finger.” (emphasis added)**

Claim 15 has been amended to recite:

“An edge-reflection surface acoustic wave filter using Shear Horizontal type surface acoustic waves comprising:

a piezoelectric substrate having a first edge and a second edge disposed opposite to each other, said first and second edges defining reflection edges; and

at least two interdigital transducers including electrode fingers and being disposed on said piezoelectric substrate; wherein

the electrode fingers of the at least two interdigital transducers include split electrodes; and

**at least one of the electrode fingers located at an outermost position in the direction of propagation of the surface acoustic waves is connected to the same potential as an adjacent split electrode.” (emphasis added)**

Applicants' claim 1 recites the features of “at least two interdigital transducers including electrode fingers and being disposed on said piezoelectric substrate” and “distances between an inner side of an outermost electrode finger and the first and second edges are greater than a distance between the outermost electrode finger and an adjacent electrode finger.” Applicants' claim 15 recites the feature of “at least one of the electrode fingers located at an outermost position in the direction of propagation of the surface acoustic waves is connected to the same potential as an adjacent split electrode.” With the improved features of claims 1 and 15, Applicants have been able to provide an edge-reflection surface acoustic wave filter which eliminates variations in characteristics which are caused by damage to electrode fingers, while still achieving desired filter characteristics (see, for example, the first paragraph on page 5 of the originally filed Specification).

Applicants have amended claim 1 to recite the feature of “distances between an

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inner side of an outermost electrode finger and the first and second edges are greater than a distance between the outermost electrode finger and an adjacent electrode finger" and claim 15 to recite the feature of "at least one of the electrode fingers located at an outermost position in the direction of propagation of the surface acoustic waves is connected to the same potential as an adjacent split electrode."

Kadota et al. (U.S. 6,150,900) discloses in **Figs. 7 and 8** that the distances between the inner side of the outermost electrode fingers and the closest reflection edge are equal to or less than the distance between the outermost electrode finger and the adjacent electrode finger, **NOT** that the distances between the inner side of an outermost electrode finger and the reflection edges are greater than the distance between the outermost electrode finger and the adjacent electrode finger as recited in claim 1. Thus, Applicants respectfully submit that Kadota et al. (U.S. 6,150,900) fails to teach or suggest the feature of "distances between an inner side of an outermost electrode finger and the first and second edges are greater than a distance between the outermost electrode finger and an adjacent electrode finger" as recited in Applicants' claim 1.

Further, Kadota et al. (U.S. 6,150,900) teaches in **Figs. 7 and 8** that the electrode finger that is in the outermost position and that is adjacent to a split electrode is connected to a different potential, **NOT** that one of the electrode fingers that is in the outermost position and that is adjacent to a split electrode is connected to the same potential as the adjacent split electrode as recited in Applicants' claim 15. Thus, Applicants respectfully submit that Kadota et al. (U.S. 6,150,900) fails to teach or suggest the feature of "at least one of the electrode fingers located at an outermost position in the direction of propagation of the surface acoustic waves is connected to the same potential as an adjacent split electrode" as recited in Applicants claim 15.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 1 and 15 under 35 U.S.C. § 102(b) as being anticipated by Kadota et al. (U.S. 6,150,900).

Kadota et al. (U.S. 5,768,603) fails to teach or suggest in **Fig. 10** that the

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electrode finger that is in the outermost position is adjacent to a split electrode and, certainly, fails to teach or suggest that one of the electrode fingers that is in the outermost position and that is adjacent to a split electrode is connected to the same potential as the adjacent split electrode as recited in Applicants' claim 15. Thus, Applicants respectfully submit that Kadota et al. (U.S. 5,768,603) fails to teach or suggest the feature of "at least one of the electrode fingers located at an outermost position in the direction of propagation of the surface acoustic waves is connected to the same potential as an adjacent split electrodes" as recited in Applicants claim 15.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claim 15 under 35 U.S.C. § 102(b) as being anticipated by Kadota et al. (U.S. 5,768,603).

The Examiner has alleged that it would have been obvious to combine Kadota (JP 2000-068782) and Ono et al. Applicants respectfully disagree.

First, the Examiner alleged that It would have been obvious to modify the resonator of Ono et al. in view of the filter of Kadota et al. (JP 2000-068782).

The Examiner is reminded that if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims prima facie obvious. In re Ratti, 270 F.2d 810, 123 USPQ 349 (CCPA 1959) and MPEP § 2143.01. Thus, Applicants respectfully submit that it is improper to modify the resonator of Ono et al. in view of the filter of Kadota et al. (JP 2000-068782) as suggested by the Examiner because filters and resonators operate quite differently and cannot be combined without significantly changing the principle of operation thereof.

Second, the Examiner alleged in the paragraph bridging pages 6 and 7 of the outstanding Office Action that it would have obvious to modify the filter of Kadota et al. (JP 2000-068782) in view of the resonator of the Ono et al. for the purpose "of reducing the chances of damaging an outermost electrode in the dicing procedure."

Applicants respectfully submit that the Examiner has failed to provide any reference that teaches or suggests that one of ordinary skill in the art would be

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concerned with damaging the outermost electrode of the filter in Kadota et al. (JP 2000-068782). Instead of basing the conclusion of obviousness on actual teachings or suggestions of the prior art and the knowledge of one of ordinary skill in the art at the time the invention was made, the Examiner has improperly used Applicants' own invention as a guide. The Examiner is reminded that it is impermissible to use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention. In re Fritch, 972 F.2d 1260, 23 USPQ 2d 1780, 1784 (Fed. Cir. 1992).

Thus, Applicants respectfully submit that the Examiner has improperly combined Ono et al. and Kadota et al. (JP 2000-068782) and that the Examiner has failed to provide a single reference or a combination of references that teach the combination of features of "at least two interdigital transducers including electrode fingers and being disposed on said piezoelectric substrate" and "distances between an inner side of an outermost electrode finger and the first and second edges are greater than a distance between the outermost electrode finger and an adjacent electrode finger" with the other features recited in Applicants' claim 1.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claim 1 under 35 U.S.C. § 103(a) as being obvious over Kadota (JP 2000-068782) and Ono et al.

Applicants have added claim 29 that recites the feature of "distances between an inner side of an outer split electrode of an outermost electrode finger and the first and second edges are greater than a distance between an inner split electrode of the outermost electrode finger and an adjacent electrode finger." None of Kadota et al. (U.S. 6,150,900), Kadota et al. (U.S. 5,768,603), Kadota (JP 2000-068782), and Ono et al. teaches or suggests this feature.

Accordingly, Applicants respectfully submit that none of the prior art of record, applied alone or in combination, teaches or suggests the unique combination and arrangement of elements recited in claims 1, 15, and 29 of the present application. Claims 2-7 depend upon claim 1 and are therefore allowable for at least the reasons



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that claim 1 is allowable. Claims 17-21 depend upon claim 15 and are therefore allowable for at least the reasons that claim 15 is allowable. Claims 30-34 depend upon claim 29 and are therefore allowable for at least the reasons that claim 29 is allowable. The Examiner has allowed claims 8-14 and 22-28.

In view of the foregoing amendments and remarks, Applicants respectfully submit that this application is in condition for allowance. Favorable consideration and prompt allowance are solicited.

To the extent necessary, Applicants petition the Commissioner for a ONE-month extension of time, extending to August 6, 2004, the period for response to the Office Action dated May 6, 2004.

The Commissioner is authorized to charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-1353.

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Respectfully submitted,



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